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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/506,158	02/17/2000	Pierre-Yvan Liardet	98RO21054169	6798

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EXAMINER

ADAMS, JONATHAN R

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/15/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/506,158

Applicant(s)

LIARDET ET AL.

Examiner

Jonathan R Adams

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/17/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

NORMAN M. WRIGHT
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Sr. et al. (US Patent no. 6,144,744, hereafter referred to as '744) in view of applicant admitted prior art.

As to claims 11-13,15, and16,

Applicant admitted prior art teaches a system/apparatus/circuit comprising:

1. Memory module (Fig 3, Item 30, Applicant Admitted)
2. Input/Output registers (Fig 3, Item 32, Applicant Admitted)
3. Two-Way link (Fig 3, Item 31, Applicant Admitted)
4. Input register (Fig 3, Item 36, Applicant Admitted)
5. Key register(Fig 3, Item 38, Applicant Admitted)
6. Multiplexer (Fig 3, Item 34, Applicant Admitted)
7. Processing module (Fig 3, Item 42, Applicant Admitted)
8. Control module (Fig 3, Item 40, Applicant Admitted)
9. Output register (Fig 3, Item 44, Applicant Admitted)

'744 teaches a method and apparatus for the secure transfer of data between secure component modules comprising:

10. Scrambling register... / PKA transport key register... (Col 15, Line 40 et seq., '744)
11. Scrambling bits are foreign to / Extracted key under the transport key ... (Col 2, Line 62 et seq., '744)
12. Accessory input register ... to receive scrambling bits... / the transport key is stored in the BTK register... (Col 16, Line 16 et seq., '744)
13. Scrambling bits are generated randomly / Pseudo Random number generator (Fig. 1, Item 160, '744)
14. Scrambling bits are sent in groups of eight bits / 16-byte (128-bit) crypto identifier (Col 6, Line 9 et seq., '744)
15. Scrambling bits are transmitted... whenever a digital key is input / Extracted key under the transport key ... (Col 2, Line 62 et seq., '744)

The applicant admitted prior art cited in Fig. 3 teaches the use of a Memory module, Input/Output registers, Two-Way link, Input register, Multiplexer, Processing module, Control module, and Output register to transmit data and a digital key from memory to a cryptographic coprocessor. Applicant admitted prior art does not teach the use of scrambling bits to secure the value of the digital key. '744 teaches the use of scrambling bits to ensure the secure transfer of data and a digital key over an insecure transmission line. It would have been obvious to a person of ordinary skill in the art at

the time of invention, to augment the invention submitted as prior art by the applicant with the invention described in '744. One of ordinary skill in the art would have been motivated to augment applicant admitted prior art because "it is desirable to have a way to transfer the master key from one cryptographic processor to another" (Col. 1, Line 58 et seq., '744). '744 suggests that the crypto module may be physically integrated into a central processor complex of a general purpose digital computer (Col. 5, Line 58 et seq., '744).

As to claims 17-19,21,23, and 24, they recite a broader recitation of previously rejected claims 11-16 in various concomitant elements. Accordingly, they are rejected by the references listed above.

As to claims 25-34, they recite the corresponding methods being preformed on the circuit/apparatus/methods of '744, Accordingly they are rejected under the same rational, see above.

As to claims 14, 20, and 22:

The examiner takes official notice of both the motive and modification necessary to implement the accessory input register as being the same size as the scrambling register.

'744 in view of applicant admitted prior art teaches the use of an accessory input register and a scrambling register to aid in the security of a cryptographic coprocessor. Not specifically taught is to implement the accessory input register as being the same size as the scrambling register. It would have been obvious to a person of ordinary skill in the art at the time of invention to implement the accessory input register as being the


same size as the scrambling register. One of ordinary skill in the art would have been motivated to implement the accessory input register as being the same size as the scrambling register because the size of the register under the circumstances is considered to be arbitrary, as "there is no major drawback if the accessory input register has a size different from that of the scrambling register" as sited in the specification (Page 13, Line 7 et seq.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan R Adams whose telephone number is (703) 305-8894. The examiner can normally be reached on Monday – Friday from 10am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


NORMAN M. WRIGHT
PRIMARY EXAMINER